

**National Transportation Safety Board
Washington, DC 20594**

Brief of Incident

Adopted 09/11/1992

ATL89IA187 File No. 5053	08/02/1989	GREENSBORO, NC	Aircraft Reg No. N413US	Time (Local): 10:55 EDT		
Make/Model:	BOEING / 737-400			Fatal	Serious	Minor/None
Engine Make/Model:	GE / 56-382		Crew	0	0	6
Aircraft Damage:	Minor		Pass	0	0	100
Number of Engines:	2					
Operating Certificate(s):	Flag Carrier/Domestic					
Name of Carrier:	PIEDMONT AIRLINES					
Type of Flight Operation:	Scheduled; Domestic; Passenger Only					
Reg. Flight Conducted Under:	Part 121: Air Carrier					
Last Depart. Point:	WASHINGTON , DC		Condition of Light:	Day		
Destination:	CHARLOTTE , NC		Weather Info Src:	Weather Observation Facility		
Airport Proximity:	On Airport		Basic Weather:	Visual Conditions		
Airport Name:	GREENSBORO		Lowest Ceiling:	None		
Runway Identification:	23		Visibility:	4.00 SM		
Runway Length/Width (Ft):	10001 / 150		Wind Dir/Speed:	340 / 008 Kts		
Runway Surface:	Concrete		Temperature (°C):	27		
Runway Surface Condition:	Dry		Precip/Obscuration:	None / Haze		
Pilot-in-Command	Age: 48		Flight Time (Hours)			
Certificate(s)/Rating(s)			Total All Aircraft:	14019		
Airline Transport; Multi-engine Land; Single-engine Land			Last 90 Days:	189		
Instrument Ratings			Total Make/Model:	7944		
Airplane			Total Instrument Time:	UnK/Nr		

DURING APPROACH TO CHARLOTTE, THE MAIN GEAR WOULD NOT EXTEND. THE FLT DIVERTED TO GREENSBORO. THE RIGHT GEAR EVENTUALLY EXTENDED AFTER APPLYING EXTENSIVE G-FORCES, BUT THE LEFT GEAR WOULD NOT. AFTER LANDING, A 29-INCH WHEEL CHOCK WAS FOUND WEDGED BETWEEN THE RADIUS OF THE LEFT WHEEL WELL AND THE INBOARD WHEEL WHICH PREVENTED THE LEFT GEAR FROM FALLING DOWN. THE AIRPLANE HAD BEEN POSITIONED SEVERAL TIMES THE NIGHT BEFORE, AND THE MECHANICS RECALLED PLACING THE CHOCKS IN THE WHEEL WELL. AN A-CHECK, AND A WALK-AROUND INSPECTION, HAD BEEN COMPLETED PRIOR TO THE FLIGHT'S DEPARTURE FROM WASHINGTON. EACH INSPECTION REQUIRED AN INSPECTION OF THE WHEEL WELL AREA. THE FIRST OFFICER STATED THAT HE DIDN'T SEE THE CHOCK WHICH WAS MARKED WITH YELLOW REFLECTIVE TAPE. A FLASHLIGHT WAS USED DURING THE INSPECTION.

Brief of Incident (Continued)

ATL89IA187
File No. 5053 08/02/1989 GREENSBORO, NC Aircraft Reg No. N413US Time (Local): 10:55 EDT

Occurrence #1: GEAR NOT EXTENDED
Phase of Operation: LANDING - FLARE/TOUCHDOWN

Findings

1. (C) LANDING GEAR,NORMAL RETRACTION/EXTENSION ASSEMBLY - FOREIGN OBJECT
2. (C) LANDING GEAR,NORMAL RETRACTION/EXTENSION ASSEMBLY - JAMMED
3. (C) MAINTENANCE,INSPECTION - INADEQUATE - COMPANY MAINTENANCE PERSONNEL
4. (C) AIRCRAFT PREFLIGHT - INADEQUATE - COPILOT/SECOND PILOT

Findings Legend: (C) = Cause, (F) = Factor

The National Transportation Safety Board determines the probable cause(s) of this incident as follows.

FAILURE OF THE LINE MECHANIC, A CHECK MECHANIC, AND FIRST OFFICER TO IDENTIFY AND REMOVE THE WHEEL CHOCK FROM THE WHEEL WELL DURING THE REQUIRED INSPECTIONS.